

**STATE OF NEW MEXICO
SECRETARY OF ENVIRONMENT**

**ENVIRONMENTAL PROTECTION DIVISION
OF THE NEW MEXICO ENVIRONMENT
DEPARTMENT,**

Complainant,

v.

No. AQCA 09-39 (CO)

RUSSELL SAND AND GRAVEL, INC.

Respondent.

SETTLEMENT AGREEMENT AND STIPULATED FINAL COMPLIANCE ORDER

This Settlement Agreement and Stipulated Final Compliance Order (“Final Order”) is entered into between the Environmental Protection Division (“Division”) of the New Mexico Environment Department (the “Department”) and Russell Sand and Gravel, Inc. (collectively, the “Parties”) to resolve alleged violations of the New Mexico Air Quality Control Act (“AQCA”), NMSA 1978, § 74-2-1 to 74-2-17; the Air Quality Control Regulations (“AQCR”), 20.2. NMAC (“Regulations”), and Air Quality Permits GCP-3-3200 and GCP2-3581.

I. BACKGROUND

A. PARTIES

1. The Department is an agency of the executive branch of the State of New Mexico, created pursuant to NMSA 1978, § 9-7A-4. The Division is an organizational unit of the Department. The Secretary of the Department has delegated to the Director of the Division the authority to seek administrative enforcement of the AQCA and the AQCR,

including assessing civil penalties for violations thereof. NMSA 1978, § 74-2-12. The Air Quality Bureau is an organizational unit of the Division.

2. Russell Sand & Gravel, Inc., (“Russell”) is a New Mexico corporation in good standing whose principal corporate address is County Road 340 Gate #150, Los Ojos, New Mexico, 87551.
3. Russell owns and operates a portable asphalt plant known as Portable Asphalt Plant #2, which was registered under Air Quality Permit GCP-3-3200, issued by the Department on March 31, 2005.
4. Russell also owns and operates a sand and gravel facility known as Sand & Gravel Facility #2, which was registered under Air Quality Permit GCP2-3581, issued on July 19, 2007.

B. HISTORY AND ALLEGED VIOLATIONS

5. On November 12, 2008, Bureau staff inspected the Portable Asphalt Plant #2. On November 20, 2008, Russell submitted to the Department records covering the period of May 9, 2007 through November 12, 2007, as requested by the Department. Based on the results of the inspection and subsequent record review, the Department alleged violations as follows:

- a. failure to conduct Method 9 tests in each of nine months, resulting in nine separate violations of permit condition Permit GCPS-3200, condition IV.A.1;
- b. failure to record required parameters related to scrubber operations resulting in 76 days of violations of Permit GCPS-3200, condition IV.A.3;

- c. failure to maintain records regarding certain specified operational parameters as required by Permit GCPS-3200, condition IV.B.3, for periods of 8 days, 15 days, and 8 weeks (depending on the parameter).
6. On April 20, 2009, the Bureau received from Russell results of a compliance test for carbon monoxide, nitrogen oxides, and opacity at the Sand & Gravel plant. This date was 272 days after the deadline imposed by Permit GCPS-3200, condition IV.D.10, resulting in an alleged violation of that condition.
7. On September 30, 2009, the Department issued to Russell Compliance Order No. AQCA 09-39 (CO), setting forth the above alleged violations in greater particularity.
8. On November 2, 2009, Russell filed an Answer and Request for Hearing, addressing the allegations in the Compliance Order and setting forth affirmative defenses.

II. COMPROMISE AND SETTLEMENT OF ALLEGED VIOLATIONS

9. To avoid litigation, the Division and Russell propose the settlement in this Final Order to resolve the alleged violations in the Compliance Order. Under 20.1.5.600.B NMAC, the Division and Russell agree to this Final Order for the sole purpose of resolving the alleged violations in the Compliance Order. Russell does not admit any of the allegations in the Compliance Order. The Division does not concede the validity of any of the affirmative defenses raised.
10. For purposes of this proceeding only, the parties admit the jurisdictional allegations of the Compliance Order and consent to the relief specified herein, including the assessment of the stated civil penalty.
11. In compromise and settlement of the alleged violations set forth in the Compliance Order, the Parties agree as follows:

12. Russell shall pay a civil penalty \$10,500 to the State of New Mexico within thirty (30) calendar days after the effective date of this Final Order.
13. Payment shall be made to the *State of New Mexico* by certified or corporate check and sent to the following address:

New Mexico Environment Department
Air Quality Bureau
c/o Debra McElroy, Compliance and Enforcement Manager
1301 Siler Rd., Building B
Santa Fe, New Mexico 87507-3541
14. If Russell fails to make timely and complete payment of the civil penalty, Russell shall pay interest on the outstanding balance at the rate established for judgments and decrees under NMSA 1978, § 56-8-4.
15. Russell shall perform a Supplemental Environmental Project (SEP), involving the paving of certain dirt streets in the Village of Chama, as described in Exhibits 1 and 2 (including Exhibits A, B, and C within Exhibit 1) attached hereto.
16. The SEP shall be completed by October 31, 2011, and Russell shall submit a certified statement of all costs associated with the SEP on or before November 15, 2011.
17. If Russell fails to complete the SEP by October 31, 2011, Russell stipulates to pay a civil penalty of \$500.00 for each day beyond October 31, 2011 until the SEP is completed.
18. If Russell fails to submit a certified statement of all costs associated with the SEP on or before November 15, 2011, Russell stipulates to pay a civil penalty of \$250.00 for each day beyond November 15, 2011 until the certified statement of all costs associated with the SEP is submitted.
19. Within 10 days following its receipt of a written demand by the Department, Russell shall make payment of any stipulated penalty. Russell shall make a cash payment, by certified

or corporate check, of any stipulated penalty to the State of New Mexico General Fund, and sent to the address specified in Paragraph 13.

III. OTHER TERMS AND CONDITIONS

A. RESERVATION OF RIGHTS AND DEFENSES

20. This Final Order shall not be construed to prohibit or limit in any way the Department from requiring Russell to comply with any applicable state or federal requirement. This Final Order shall not be construed to prohibit or limit in any way the Department from seeking any relief authorized by the AQCA for violation of any state or federal requirement applicable to Russell not resolved herein. This Final Order shall not be construed to prohibit or limit in any way Russell from raising any defense to a Department action seeking such relief.

B. MUTUAL RELEASE

21. The Parties mutually release each other from all claims that each Party raised or could have raised against the other regarding the facts and violations alleged in the compliance order. Such release applies only to civil liability.

C. WAIVER OF STATE LIABILITY

22. Russell shall assume all costs and liabilities incurred in performing all obligations under this Final Order. The Department, on its own behalf and on behalf of the State of New Mexico, does not assume any liability for Russell's performance of any obligation under this Final Order.

D. EFFECTIVE DATE AND TERMINATION DATES

23. This Final Order shall become effective on the date it has been signed by the Department Secretary.

24. Except as otherwise provided in this Paragraph, the terms of this Final Order shall terminate when Russell has fulfilled the requirements of this Final Order. The reservations of rights and defenses and the mutual release in Paragraphs 20 and 21 shall not terminate, and shall remain in effect as an agreement between the Parties.

E. INTEGRATION

25. This Final Order merges all prior written and oral communications between the Parties concerning the subject matter of this Final Order, contains the entire agreement between the Parties, and shall not be modified without the express written agreement of the Parties.

F. BINDING EFFECT

26. This Final Order shall be binding on the Parties and their officers, directors, employees, agents, subsidiaries, successors, assigns, trustees, or receivers.

G. AUTHORITY OF SIGNATORIES

27. The person executing this Final Order on behalf of Russell represents that he or she has the authority to execute this Final Order on behalf of Russell.

H. COUNTERPARTS

28. This Final Order may be signed in counterparts.

ENVIRONMENTAL PROTECTION DIVISION

NEW MEXICO ENVIRONMENT DEPARTMENT:

By: Mary E Rose
MARY ROSE
ACTING DIRECTOR

Date: 11/15/11

RUSSELL SAND AND GRAVEL

By: Russell Casados
RUSSELL CASADOS
PRESIDENT

Date: 10/26/11

STIPULATED FINAL COMPLIANCE ORDER

Pursuant to section 20.1.5.600.B(2) NMAC, this Settlement Agreement and Stipulated Final Compliance Order, agreed to by the Division and the Respondent Russell Sand and Gravel, is hereby incorporated herein and **APPROVED AS A FINAL COMPLIANCE ORDER** issued pursuant to NMSA 1978, §74-2-12.

David Martin
DAVID MARTIN
SECRETARY OF ENVIRONMENT

Date: 11-9-11



PO Box 296
Los Ojos, NM 87551
LOS Phone: 575-588-7933
Fax: 575-588-9225
rsgravel@hotmail.com

Los Ojos, NM

August 5, 2011

Debra McElroy
Air Quality Bureau
New Mexico Environment Department
1301 Siler Road, Bldg. B
Santa Fe, NM 87505

Re: REVISED SEP PROPOSAL TO PAVE ASPEN AND PIÑON STREETS IN CHAMA, NM

INTRODUCTION

The purpose of this letter is to correct and supplement the information supplied to your office regarding the Supplemental Environmental Project (SEP) that Russell Sand & Gravel proposes to resolve the Compliance Order styled *Environmental Protection Division v. Russell Sand & Gravel*, No. AQCA 09-39 (CO). This letter is intended to replace the proposal from me dated June 1, 2011.

Russell Sand & Gravel is proposing the paving of 0.6 miles of gravel and dirt roads for the residents of Chama, New Mexico, known as Aspen and Piñon Streets. Aspen and Piñon Streets are shown on the map attached hereto as Exhibit A. In sum, RSG offers to settle for a total value in the range of \$74,991.00 with a \$10,500.00 monetary payment and a SEP ($(\$85,988 \times 0.75) + \$10,500$).

DISCUSSION

The paving of Aspen and Piñon Streets would be a 2" thickness of New Mexico Department of Transportation design, Type B Plant Mix Bituminous Pavement. The paving would cover 3,166 feet in length, 18 feet in width, which calculates to 56,988 square feet. Paving cost of 56,988 square feet at \$1.00 per foot = \$56,988.00; road grading, shaping, and compaction for paving is \$19,000.00; mobilization and demobilization of all equipment and personnel is \$10,000.00. A more detailed break-out of the mobilization and demobilization costs is attached hereto as Exhibit B. The TOTAL PROJECT COST to RSG is estimated to be \$85,988.00.

{00301154-1}1

Exhibit 1

The cost estimate for the overlay is as follows:

▪ Mobilization & Demobilization =	\$10,000.00
	(detailed cost information provided in Exhibit B)
▪ 56,988 square feet of asphalt paving, includes asphalt laid in place 2 inches thick, compaction with rollers =	\$56,988.00
▪ Shaping and compacting of base course for paving preparation =	<u>\$19,000.00</u>
TOTAL	\$85,988.00

As part of our offer, we propose that the AQB give a 75% credit on the \$85,988.00 SEP for paving in Chama.

After inspecting the existing gravel roads in Chama, we have concluded the only way to effectively do a paving SEP for dust control and impacting the most residents is to pave two of the most populated streets in Chama, namely Aspen and Piñon Streets. This paving project would enhance and complete the roadways esthetically as well as control dust on the most used gravel roads in the area impacting all of the residents of Chama.

RS&G evaluates the benefits of the proposed SEP as follows:

1. Benefits to Public Health and the Environment. The paving project for dust control results in a significant and quantifiable reduction of dust in and around the area reducing dust. This end result is a cleaner environment and healthier environment for the residents. An analysis of the emissions reductions from the proposed SEP is attached hereto as Exhibit C.

As part of the analysis in Exhibit C, we estimated that there are 100 cars that pass on the streets per day. This estimate is based on the residences and facilities located on the streets. More specifically, we estimate that there are approximately 38 residences located on Aspen and Piñon streets. If each residence had only a single vehicle leaving and returning per day, a conservative estimate, that would result in 81 cars per day.¹ In addition, there is a U.S. Bureau of Reclamation facility and a New Mexico Department of Game and Fish facility located along the route. We estimate that 20 to 25 cars travel the route to access these facilities.

2. Innovativeness. By paving the proposed roads in Chama it would provide a permanent solution for dust generated by vehicular traffic
3. Environment Justice. Not only would the paving reduce dust emissions into the atmosphere creating a healthier environment for the Chama citizens, it would provide paved roads to a community and municipality that possibly could not afford to pave their roads. The SEP would not only control dust emissions but would increase property values in the area.
4. Pollution Prevention. The SEP would permanently prevent emissions of dust from the roadway.

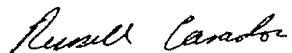
¹ This number increases if more than one vehicle is used per residence located along the route.

CONCLUSION

RSG is proposing a 56,988 square foot paving project for the Chama community as part of a settlement of the above-referenced case. The paving of these roads would reduce dust emissions creating a healthier environment for the Chama residents and increasing property values in the area.

I thank you for your consideration of our proposal. If I can be of any assistance please call me at 575-588-7933 or email me at rsg gravel@hotmail.com

Sincerely,



Russell Casados, President

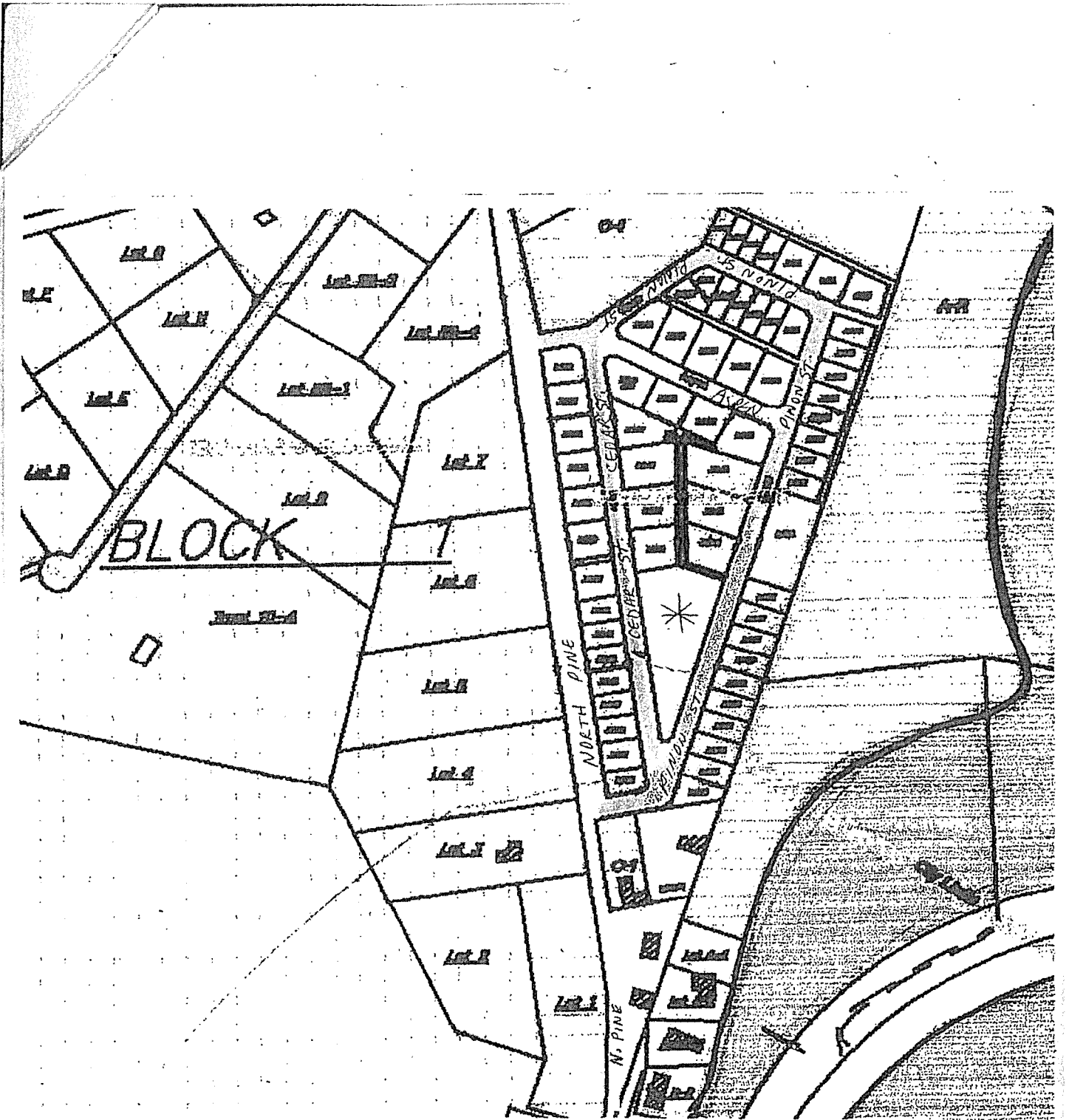


Exhibit A



PO Box 296
 Los Ojos, NM 87551
 Phone: 575-588-7933
 Fax: 575-588-9225
 Email: rsgravel@holmell.com
 Website: www.russellsandgravel.com

CHAMA PAVING PROJECT COST BREAKDOWN FOR MOBILIZATION & DEMOBILIZATION

Description	Amount
Mobilize Smooth Drum Roller from Albuquerque to Project	\$ 750.00
Demobilize	\$ 750.00
Mobilize Neumatic Roller from Albuquerque to Project	\$ 750.00
Demobilize	\$ 750.00
Mobilize Paver from Belen, NM to Project	\$ 1,000.00
Demobilize	\$ 1,000.00
Mobilize Pick-up Machine to Project	\$ 500.00
Demobilize	\$ 500.00
Mobilize Loader to Project	\$ 500.00
Demobilize	\$ 500.00
Mobilize Paving Crew from Belen, NM to Project	\$ 650.00
Demobilize	\$ 650.00
Mobilize Motor Grader to Project	\$ 500.00
Demobilize	\$ 500.00
Mobilize Water Truck to Project	\$ 350.00
Demobilize	\$ 350.00
Total	\$ 10,000.00

*Mobilize means loading equipment on truck and transport trailer and delivering it to job-site and unloading at jobsite

*Demobilize means loading on truck and transport trailer at job-site and returning and unloading equipment at yard



 Russell Casados, President

PROJECT:

Russell Sand & Gravel SEP Project
 0.6 mile of paving of existing residential unpaved road in Chama, New Mexico

$$E = \frac{k \cdot (a/W)^b \cdot (S/M)^c \cdot C}{(M \cdot S)^d} \quad (1b)$$

where k, a, b, c and d are empirical constants (Reference 1) given below and

- E = size-specific emission factor (lb/VMT)
- s = surface material silt content (%)
- W = mean vehicle weight (tons)
- M = surface material moisture content (%)
- S = mean vehicle speed (mph)
- C = emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear.

The source characteristics k, W and M are referred to as correction parameters for adjusting the emission estimates to local conditions. The metric conversion from lb/VMT to grams (g) per vehicle kilometer traveled (VKLT) is as follows:

$$1 \text{ lb/VMT} = 281.9 \text{ g/VKLT}$$

The constants for Equations 1a and 1b based on the stated aerodynamic particle sizes are shown in Tables 13.2.2.1 and 13.2.2.2. The PM 2.5 particle size multiplier (k factor) is taken from Reference 27.

Table 13.2.2.1. CONSTANTS FOR EQUATIONS 1a AND 1b

Constant	Industrial Roads (Equation 1a)			Public Roads (Equation 1b)		
	PM _{2.5}	PM ₁₀	PM _{2.5+10} *	PM _{2.5}	PM ₁₀	PM _{2.5+10} *
k (lb/VMT)	0.15	1.5	4.9	0.18	1.8	6.0
a	0.9	0.9	0.7	1	1	1
b	0.45	0.45	0.45	-	-	-
c	-	-	-	0.2	0.2	0.3
d	-	-	-	0.5	0.5	0.3
Quality Rating	B	B	B	B	B	B

*Assumed equivalent to total suspended particulate matter (TSP).
 - = not used in the emission factor equation

Table 13.2.2.2 also contains the quality ratings for the various size-specific versions of Equation 1a and 1b. The equation retains the assigned quality rating, if applied within the ranges of source conditions, shown in Table 13.2.2.3 that were revised in developing the equation.

Using AP 42 Section 13.2.2 UnPaved Roads

Factor	PM 2.5 Calculation	PM -10 Calculation	TSP Calculation
k =	0.18 PM 2.5	1.80 PM 10	6.00 PM 30
s =	10.00 Percent Silt	10.00 Percent Silt	10.00 Percent Silt
S =	20 MPH	20 MPH	20 MPH
d =	0.5 PM 2.5	0.5 PM 10	0.3 PM 30
M =	3.00	3.00	3.00
a =	1	1	1
c =	0.2 PM 2.5	0.2 PM 10	0.3 PM 30
C = Brake Wear	0.00036	0.00047	0.00047
E = (C32* D32/E32)-C31	0.15 0.816497 1.430969	1.50 0.816497 1.430969	5.00 0.885467 1.71177
Distance	0.085 lb/VMT	0.855 lb/VMT	2.586 lb/VMT
Per Light duty vehicle	0.6 mile	0.6 mile	0.6 mile
Vehicles/Day	0.051 Lbs/Vehicle	0.513 Lbs/Vehicle	1.552 Lbs/Vehicle
Days/Year	100	100.0	100
Annual Emissions	365	365	365
Annual Emissions	1,867 lbs/year	18,734 lbs/year	56,632 lbs/year
Annual Emissions	0.933 ton/year	9.367 ton/year	28.316 ton/year

$$E_{\text{ext}} = E [(365 - P)/365] \quad (2)$$

where:

E_{ext} = annual size-specific emission factor extrapolated for natural mitigation lb./VMT

E = emission factor from Equation 1a or 1b

P = number of days in a year with at least 0.254 mm (0.01 in) of precipitation (see

below)

Figure 13.2.2-1 gives the geographical distribution for the mean annual number of "wet" days for the United States

Wet Days Mitigation	$E_{\text{ext}} = E (365 - P / 365)$		
Wet Days NM	70	81%	
Annual Emissions	1,509	lbs./year	15,141
Annual Emissions	0.754	ton/year	7.570
			45,771
			22.886

Comparison to Paving 0.6 mile of residential road surface in Chama, NM
 Using AP 42 Section 13.2.2 Unpaved Roads

13.2.1.3 Predictive Emission Factor Equations^{AP-42}

The quantity of particulate emissions from resuspension of loose material on the road surface due to vehicle travel on a dry paved road may be estimated using the following empirical expression:

$$E = k (\text{SL})^{0.91} \times (\text{W})^{1.02} \quad (1)$$

where: E = particulate emission factor (having units matching the units of E),
 k = particle size multiplier for particle size range and units of interest (see below);
 SL = road surface silt loading (grams per square meter (g.m²), and
 W = average weight (tons) of the vehicles traveling the road.

PAVED EMISSIONS	PM - 2.5 (lb/VMT)	PM - 10 (lb/VMT)	TSP (lb/VMT)
k =	0.00054	0.0022	0.011
Distance	0.6 mile	0.6 mile	0.6 mile
SL = Table 13.2.1.1 (0.6x4)	2.4 g/M2	2.4 g/M2	2.4 g/M2
W = Weight	2.5 tons	2.5 tons	2.5 tons
E = k(SL) ^{0.91} *(W) ^{1.02}	0.0030499 Lbs/VMT	0.0124255	0.0621275
E factor =	0.001830 Lbs/Vehicle	0.007455 Lbs/Vehicle	0.03728 Lbs/Vehicle
Vehicles/Day	100	100.0	100
Days/Year	365	365	365
Annual Emissions	67 lbs/year	272 lbs/year	1,361 lbs/year
Annual Emissions	0.033 ton/year	0.136 ton/year	0.680 ton/year
Wet Days Mitigation	E ext = E (365-70/365)		
Wet Days NM	70	81%	
Annual Emissions	54 lbs/year	220 lbs/year	1,100 lbs/year
Annual Emissions	0.027 ton/year	0.110 ton/year	0.550 ton/year
Annual Reduction Emissions Reduction	98.4%	98.5%	97.6%
	0.8 ton/year	7.6 ton/year	22.9 ton/year

Table 13.2.1-1. PARTICLE SIZE MULTIPLIERS FOR PAVED ROAD EQUATION

Size range ^a	Particle Size Multiplier k ^b		
	g/VKT	g/VMI	lb/VMI
PM 2.5 ^c	0.15	0.25	0.00054
PM-10	0.62	1.00	0.0022
PM-15	0.77	1.23	0.0037
PM-30 ^d	3.23	3.24	0.011

^a Refer to airborne particulate matter (PM-x) with an aerodynamic diameter equal to or less than x micrometers

^b Units shown are grams per vehicle kilometer traveled (g/VKT), grams per vehicle mile traveled (g/VMT), and pounds per vehicle mile traveled (lb/VMT). The multiplier k includes unit conversions to produce emission factors in the units shown for the indicated size range from the mixed units required in Equation 1.

^c The k-factors for PM_{2.5} were based on the average PM_{2.5}/PM₁₀ ratio of test runs in Reference 30

^d PM-30 is sometimes termed "suspendable particulate" (SP) and is often used as a surrogate for TSP.

Table 13.2.1-2 presents recommended default silt loadings for normal baseline conditions and for wintertime baseline conditions in areas that experience frozen precipitation with periodic application of anti-skid material¹. The winter baseline is represented as a multiple of the non-winter baseline, depending on the ADT value for the road in question. As shown, a multiplier of 4 is applied for low volume roads (< 500 ADT) to obtain a wintertime baseline silt loading of 4 X 0.6 = 2.4 g/m².

Table 13.2.1-2. Ubiquitous Silt Loading Default Values with Hot Spot Contributions from Anti-Skid Abrasives (g/m²)

ADT Category	< 500	500-5,000	5,000-10,000	> 10,000
Ubiquitous Baseline g/m ²	0.6	0.2	0.06	0.03 0.015 limited access
Ubiquitous Winter Baseline Multiplier during months with frozen precipitation	X4 ^f	X3	X2	X1
Initial peak additive contribution from application of anti-skid abrasive (g/m ²)	2	2	2	2
Days to return to baseline conditions (assume linear decay)	7	3	1	0.3

Grantham, Bill, NMENV

From: Russell Sand and Gravel [rsgravel@hotmail.com]
Sent: Wednesday, August 24, 2011 12:10 PM
To: Jeff Wechsler Montgomer Andrews
Subject: \$19,000.00 breakdown

Jeff,

56,988 square feet divided by 9 feet equals 6332 square yards.

\$2.00 per square yard is standard pricing for subgrade preparation on smaller projects.

The 264 tons of base course was calculated by the 56,988 square feet applying the base course at one inch in depth.

56988 square feet times .08333(1 inch in depth) equals 4,748.99 cubic feet. 4748.99 divided by 27(cubic feet in a cubic yard) equals 175.888 cubic yards.

175.88 yards times 1.5(tons in a cubic yard of base course) equals 263.83 tons of base course. I rounded it to 264 tons.

Russell Casados

Russell Sand & Gravel Co., Inc.

PO Box 296, Los Ojos, NM 87551

Phone: 575-588-7933

Cell: 505-946-7864

Fax: 575-588-9225

rsgravel@hotmail.com

www.russellsandgravel.com

From: Russell Sand and Gravel [<mailto:rsg gravel@hotmail.com>]
Sent: Wednesday, August 24, 2011 11:38 AM
To: Jeffrey Wechsler
Subject: breakdown on \$19,000.00

Jeff,

The cost breakdoen on the \$19,000.00 is as follows.

6332 square yards of subgrade preperation at \$2.00 per square yard equals \$12,664.00

I estimated that 264 tons of base course will need to be imported and placed to help shape the road for paving. 264 tons at \$24.00 per ton equals \$6,336.00

\$12,664.00 plus \$6336.00 equals \$19,000.00

Subgrade Preperation is the term used to describe grading, watering and compacting the roadway for paving.

Russell Casados

Russell Sand & Gravel Co., Inc.

PO Box 296, Los Ojos, NM 87551

Phone: 575-588-7933

Cell: 505-946-7864

Fax: 575-588-9225

rsg gravel@hotmail.com

www.russellsandgravel.com